

Apex Labs

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Wednesday, July 15, 2015

Terry Rice
Columbia West Engineering, Inc.
11917 NE 95th Street
Vancouver, WA 98682

RE: Storedahl-Evraz / 1033Q

Enclosed are the results of analyses for work order A5G0329, which was received by the laboratory on 7/13/2015 at 2:50:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: DAuvil@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil For Darwin Thomas, Business Development Director

Columbia West Engineering, Inc.
11917 NE 95th Street
Vancouver, WA 98682

Project: **Storedahl-Evraz**
Project Number: 1033Q
Project Manager: Terry Rice

Reported:
07/15/15 12:36

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BB-S Comp	A5G0329-01	Soil	07/13/15 08:40	07/13/15 14:50
BB-C Comp	A5G0329-02	Soil	07/13/15 08:50	07/13/15 14:50
BB-N Comp	A5G0329-03	Soil	07/13/15 09:00	07/13/15 14:50
BB-Total Comp	A5G0329-04	Soil	07/13/15 09:11	07/13/15 14:50

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Columbia West Engineering, Inc.
11917 NE 95th Street
Vancouver, WA 98682Project: Storedahl-Evraz
Project Number: 1033Q
Project Manager: Terry RiceReported:
07/15/15 12:36

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
BB-S Comp (A5G0329-01)			Matrix: Soil					
Batch: 5070314								
Arsenic	4.29	---	1.02	mg/kg dry	10	07/13/15 19:11	EPA 6020A	
BB-C Comp (A5G0329-02)			Matrix: Soil					
Batch: 5070314								
Arsenic	4.43	---	1.04	mg/kg dry	10	07/13/15 19:29	EPA 6020A	
BB-N Comp (A5G0329-03)			Matrix: Soil					
Batch: 5070314								
Arsenic	4.46	---	1.10	mg/kg dry	10	07/13/15 19:34	EPA 6020A	
BB-Total Comp (A5G0329-04)			Matrix: Soil					
Batch: 5070314								
Arsenic	3.91	---	1.10	mg/kg dry	10	07/13/15 19:38	EPA 6020A	
Cadmium	ND	---	0.220	"	"	"	"	
Copper	25.2	---	2.20	"	"	"	"	
Manganese	323	---	1.10	"	"	"	"	
Zinc	28.9	---	4.40	"	"	"	"	

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Project Number: 1033Q
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07/15/15 12:36

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight								
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
BB-S Comp (A5G0329-01)			Matrix: Soil		Batch: 5070299			
% Solids	94.7	---	1.00	% by Weight	1	07/14/15 09:14	EPA 8000C	
BB-C Comp (A5G0329-02)			Matrix: Soil		Batch: 5070299			
% Solids	95.8	---	1.00	% by Weight	1	07/14/15 09:14	EPA 8000C	
BB-N Comp (A5G0329-03)			Matrix: Soil		Batch: 5070299			
% Solids	96.0	---	1.00	% by Weight	1	07/14/15 09:14	EPA 8000C	
BB-Total Comp (A5G0329-04)			Matrix: Soil		Batch: 5070299			
% Solids	95.6	---	1.00	% by Weight	1	07/14/15 09:14	EPA 8000C	

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Columbia West Engineering, Inc.
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Project: **Storedahl-Evraz**
Project Number: 1033Q
Project Manager: Terry Rice

Reported:
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QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5070314 - EPA 3051A						Soil						
Blank (5070314-BLK1)						Prepared: 07/13/15 15:35		Analyzed: 07/13/15 19:01				
EPA 6020A												
Arsenic	ND	---	1.00	mg/kg wet	10	---	---	---	---	---	---	
Cadmium	ND	---	0.200	"	"	---	---	---	---	---	---	
Manganese	ND	---	1.00	"	"	---	---	---	---	---	---	
Zinc	ND	---	4.00	"	"	---	---	---	---	---	---	
Blank (5070314-BLK2)						Prepared: 07/13/15 15:35		Analyzed: 07/14/15 15:52				
EPA 6020A												
Copper	ND	---	2.00	mg/kg wet	10	---	---	---	---	---	---	Q-16
LCS (5070314-BS1)						Prepared: 07/13/15 15:35		Analyzed: 07/13/15 19:06				
EPA 6020A												
Arsenic	48.6	---	1.00	mg/kg wet	10	50.0	---	97	80-120%	---	---	
Cadmium	50.2	---	0.200	"	"	"	---	100	"	---	---	
Copper	52.6	---	2.00	"	"	"	---	105	"	---	---	
Manganese	49.6	---	1.00	"	"	"	---	99	"	---	---	
Zinc	52.0	---	4.00	"	"	"	---	104	"	---	---	
Duplicate (5070314-DUP1)						Prepared: 07/13/15 15:35		Analyzed: 07/13/15 19:43				
QC Source Sample: BB-Total Comp (A5G0329-04)												
EPA 6020A												
Arsenic	5.16	---	1.12	mg/kg dry	10	---	3.91	---	---	28	40%	
Cadmium	ND	---	0.224	"	"	---	0.121	---	---	***	40%	
Copper	26.0	---	2.24	"	"	---	25.2	---	---	3	40%	
Manganese	354	---	1.12	"	"	---	323	---	---	9	40%	
Zinc	34.7	---	4.49	"	"	---	28.9	---	---	18	40%	
Matrix Spike (5070314-MS1)						Prepared: 07/13/15 15:35		Analyzed: 07/13/15 19:48				
QC Source Sample: BB-Total Comp (A5G0329-04)												
EPA 6020A												
Arsenic	59.1	---	1.09	mg/kg dry	10	54.3	3.91	102	75-125%	---	---	
Cadmium	53.3	---	0.217	"	"	"	0.121	98	"	---	---	
Copper	79.4	---	2.17	"	"	"	25.2	100	"	---	---	

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Project Manager: Terry Rice

Reported:
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QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5070314 - EPA 3051A							Soil					
Matrix Spike (5070314-MS1)					Prepared: 07/13/15 15:35		Analyzed: 07/13/15 19:48					
QC Source Sample: BB-Total Comp (A5G0329-04)												
Manganese	381	---	1.09	mg/kg dry	"	"	323	108	"	---	---	
Zinc	87.4	---	4.34	"	"	"	28.9	108	"	---	---	

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Project Number: 1033Q
Project Manager: Terry RiceReported:
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QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5070299 - Total Solids (Dry Weight)							Soil					
Duplicate (5070299-DUP3)					Prepared: 07/13/15 15:29		Analyzed: 07/14/15 09:14					
QC Source Sample: BB-N Comp (A5G0329-03)												
EPA 8000C												
% Solids	96.2	---	1.00	% by Weight	1	---	96.0	---	---	0.2	10%	
Duplicate (5070299-DUP4)					Prepared: 07/13/15 15:30		Analyzed: 07/14/15 09:14					
QC Source Sample: BB-Total Comp (A5G0329-04)												
EPA 8000C												
% Solids	95.6	---	1.00	% by Weight	1	---	95.6	---	---	0	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.



Columbia West Engineering, Inc.

Project: Storedahl-Evraz

11917 NE 95th Street

Project Number: 1033Q

Vancouver, WA 98682

Project Manager: Terry Rice

Reported:

07/15/15 12:36

SAMPLE PREPARATION INFORMATION

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 5070314							
A5G0329-01	Soil	EPA 6020A	07/13/15 08:40	07/13/15 15:35	0.516g/50mL	0.5g/50mL	0.97
A5G0329-02	Soil	EPA 6020A	07/13/15 08:50	07/13/15 15:35	0.504g/50mL	0.5g/50mL	0.99
A5G0329-03	Soil	EPA 6020A	07/13/15 09:00	07/13/15 15:35	0.475g/50mL	0.5g/50mL	1.05
A5G0329-04	Soil	EPA 6020A	07/13/15 09:11	07/13/15 15:35	0.475g/50mL	0.5g/50mL	1.05

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 5070299							
A5G0329-01	Soil	EPA 8000C	07/13/15 08:40	07/13/15 15:29	1N/A/1N/A	1N/A/1N/A	NA
A5G0329-02	Soil	EPA 8000C	07/13/15 08:50	07/13/15 15:29	1N/A/1N/A	1N/A/1N/A	NA
A5G0329-03	Soil	EPA 8000C	07/13/15 09:00	07/13/15 15:29	1N/A/1N/A	1N/A/1N/A	NA
A5G0329-04	Soil	EPA 8000C	07/13/15 09:11	07/13/15 15:29	1N/A/1N/A	1N/A/1N/A	NA

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Project: **Storedahl-Evraz**

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Reported:
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Notes and Definitions

Qualifiers:

Q-16 Reanalysis of an original Batch QC sample.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry' designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.
---	QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
***	Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).



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CHAIN OF CUSTODY

APEX LABS

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Lab # A560329 coc 101

Company: Columbia West		Project Mgr: Terry Rice		Project Name: Stedehals - Evate		Project # 10352	
Address: 1917 NE 95th Street, Vancouver, WA		Phone: 500-823-2900 FAX: 500-823-2901		Email:			
Sampled by: Terry Rice		ANALYSIS REQUEST					
LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HClD	NWTPH-Dx	NWTPH-Gx
B-B-S Comp	7-18-15	8:45 AM	1				
B-B-C Comp	8:50		1				
B-B-N Comp	9:00		1				
B-B-total Comp	9:11		1				
<p>RELINQUISHED BY: <u>Terry Rice</u> Signature: <u>[Signature]</u> Date: <u>7-13-15</u></p> <p>RELINQUISHED BY: <u>Rick Harvey</u> Signature: <u>[Signature]</u> Date: <u>7-13-15</u></p> <p>RELINQUISHED BY: <u>Terry Rice</u> Signature: <u>[Signature]</u> Date: <u>7-13-15</u></p>							

Quinn to mail